



PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) Sheet 1 of 4		Complete if Known	
		Application Number	09/534,827
		Filing Date	March 23, 2000
		First Named Inventor	Matyjaszewski
		Art Unit	1713
		Examiner Name	
		Attorney Docket Number	00093

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
WJL		3,183,217	05/11/1965	Serniuk, et al.	
		3,959,225	05/25/1976	Kuntz	
		4,007,165	02/08/1977	MacLeay, et al.	
		4,374,751	02/22/1983	Dudgeon	
		4,728,706	03/01/1988	Farnham, et al.	
		4,940,648	07/10/1990	Geiger	
		4,954,416	09/04/1990	Wright, et al.	
		5,089,135	02/18/1992	Yoneyama, et al.	
		5,169,914	12/08/1992	Kaszas, et al.	
		5,312,871	05/17/1994	Mardare, et al.	
		5,405,913	04/11/1995	Harwood, et al.	
		5,451,647	09/19/1995	Faust, et al.	
		5,470,928	11/28/1995	Harwood, et al.	
		5,510,307	04/23/1996	Narayanan, et al.	
		6,111,022	08/29/2000	Matyjaszewski, et al.	
WJL		6,121,371	09/19/2000	Matyjaszewski, et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
WJL		EP 0341012	11/08/1989			
		EP 0870809	10/14/1998			
		WO 00/56795	09/28/2000			
		WO 98/01480	01/15/1998			

Examiner Signature		Date Considered	5/12/06
-----------------------	--	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington. NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PI-1114070 v1 0201710-0523

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/088 (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	09/534,827		
		Filing Date	3/23/2000		
		First Named Inventor	Matyjaszewski		
		Art Unit	1713		
Examiner Name					
Sheet	3	of	4	Attorney Docket Number	00093

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
WA		United States Patent application No. 10/269,556 filed October 11, 2002. Attorney Docket No. 010686	
		United States Patent application No. 09/359,359 filed July 23, 1999. Attorney Docket No. 00169DIV3	
		United States Patent application No. 09/972,056 filed October 5, 2001. Attorney Docket No. 00819	
		United States Patent application No. 10/034,908 filed December 21, 2001. Attorney Docket No. 001153	
		United States Patent application No. 10/118,519 filed April 6, 2002. Attorney Docket No. 010314	
		United States Patent application No. 10/271,025 filed October 15, 2002. Attorney Docket No. 010687	
		United States Patent application No. 10/289,545 filed November 7, 2002. Attorney Docket No. 00163DIVCON	
		CARTER ET AL., "Polyimide Nanofoams From Phase-Separated Block Copolymers", Electrochemical Society Proceedings, 1997, pp. 32-43, Vol. 97, No. 8, Electrochemical Society, Pennington, NJ, US, .	
		CHEN ET AL., "Pyrolytic Behavior and In-Situ Paramagnetism of Star-like C60(CH3)x(PAN)x copolymers", European Polymer Journal, March 1, 1998, pp. 421-429, Vol. 34, No. 3-4, Elsevier Science Ltd., Oxford, GB,	
WA		DOROTA GRESZTA ET AL., "Gradient Copolymers of Styrene and Acrylonitrile Via Atom Transfer Radical Polymerization", Polymer Preprints, April 1997, pages 709-710, Vol 38(1).	

Examiner Signature		Date Considered	5/12/06
--------------------	--	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/088 (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Complete if Known	
	Application Number	09/534,827
	Filing Date	3/23/2000
	First Named Inventor	Matyjaszewski
	Art Unit	1713
	Examiner Name	
Sheet 4 of 4	Attorney Docket Number	00093

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
WJ		GROMADA, J.; MATYJASZEWSKI, K. Macromolecules 2001, 34, 7664-7671.	
		MATYJASZEWSKI, K.; Editor Controlled/Living Radical Polymerization. Progress in ATRP, NMP, and RAFT. In: ACS Symp. Ser., 2000; 768, 2000., Chapter 19 "Reverse Atom Transfer Radical Polymerization Using AIBN or BPO as Initiator" pp. 263-275	
		MATYJASZEWSKI, K.; XIA, J. Chem. Rev. 2001, 101, 2921-2990.	
		QIU, J.; MATYJASZEWSKI, K; THOUIN, L.; AMATORE, C. MACROMOL. Chem. Phys. 2000, 201, 1625-1631.	
		QUEFFELEC, J.; GAYNOR, S.G.; MATYJASZEWSKI, K. Macromolecules 2000, 33, 8629-8639.	
		SEONG MU JO ET AL, "Polyacrylonitrile with Low Polydispersities by Atom Transfer Radical Polymerization", Polymer Preprints, Vol. 38(1) April 1997, pages 697-698	
		SEONG MU JO ET AL, "Effects of Various Copper Salts and Additives on Polymerization of Acrylonitrile by Atom Transfer Radical Polymerization", Polymer Preprints, Vol. 38(1) April 1997, pages 699-700	
		TAKEICHI ET AL., "Preparation of Porous Carbon Films by the Pyrolysis of Poly(Urethane-imide) Films and Their Pore Characteristics", Carbon, February 2001, pp. 257-265, Vol. 39, No. 2,	
		U. SCHUBERT ET AL., "Design of Effective Systems for Controlled Radical Polymerization of Styrene: Application of 4,4'-Dimethyl and 5,5'-Dimethyl 2,2'-Bipyridine Copper(ii) Complexes", Macromol. Rapid Commun., Vol. 20, No. 6, pp. 351-355, 1999.	
		WANG ET AL., "Living"/Controlled Radical Polymerization, Transition-Metal-Catalyzed Atom Transfer Radical Polymerization in the Presence of a Conventional Radical Initiator", Macromolecules, 1995, Vol. 28, pp. 7572-7573.	
WJ		WANG, J.-S.; MATYJASZEWSKI, K., J. Am. Chem. Soc. 1995, 117, 5614-5615.	

Examiner Signature		Date Considered	5/10/06
--------------------	--	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Form PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Atty. Docket No. 00093	Serial No.
	Applicant: Krzysztof Matyjaszewski, et al.	
	Group	

U. S. PATENT DOCUMENTS

Examiner Initial	Document Number	Patentee	Issue Date	Class	Sub-Class	Filing Date
Wkr	5,763,548	Matyjaszewski, et al.	June 9, 1998	/	/	/
/	5,789,487	Matyjaszewski, et al.	August 4, 1998	/	/	/
/	5,807,937	Matyjaszewski, et al.	September 15, 1998	/	/	/
/	5,910,549	Matyjaszewski, et al.	June 6, 1999	/	/	/
/	5,945,491	Matyjaszewski, et al.	August 31, 1999	/	/	/
Wkr	5,986,015	Midha, et al.	November 16, 1999	/	/	/

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Examiner Initial	Document Number	Public Date	Country or Patent Office	Class	Sub-Class	Transl Y	N
/	/	/	/	/	/	/	/

OTHER DOCUMENTS

(Including Author, Title, Date, Relevant Pages, Place of Publication)

Wkr	/	/	Jin-Shan Wang and Krzysztof Matyjaszewski, <i>Controlled/"Living" Radical Polymerization. Halogen Atom Transfer Radical Polymerization Promoted by a Cu(I)/Cu(II) Redox Process</i> , Reprinted from <i>Macromolecules</i> , 1995, 28. Department of Chemistry, Carnegie Mellon University. Received May 2, 1995; Revised Manuscript Received August 14, 1995.
Wkr	/	/	Kyung-Youl Baek, Masami Kamigaito and Mitsuo Sawamoto, <i>Synthesis of Star-Shaped Polymers with Divinyl Compounds by Metal-Catalyzed Living Radical Polymerization</i> , Department of Polymer Chemistry, Graduate School of Engineering, Kyoto University, Kyoto 606-8501, Japan, <i>Polymer Preprints</i> 472-473.



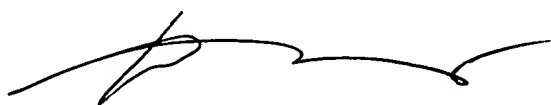
5/12/06

uk			Yuzo Kotani, Masami Kamigaito and Mitsuo Sawamoto, <i>Living Random Copolymerization of Styrene and Methyl Methacrylate with a Ru(II) Complex and Synthesis of ABC-Type "Block-Random" Copolymers</i> , <i>Macromolecules</i> , 1998. Received February 25, 1998; Revised Manuscript Received June 18, 1998.
			Jin-Shan Wang and Krzysztof Matyjaszewski, <i>Controlled/"Living" Radical Polymerization. Atom Transfer Radical Polymerization in the Presence of Transition-Metal Complexes</i> . Reprinted from the <i>Journal of the American Chemical Society</i> , Vol. 117, No. 20, 1995.
			Mitsuru Kato, Masami Kamigaito, Mitsuo Sawamoto and Toshinobu Higashimura, <i>Polymerization of Methyl Methacrylate with the Carbon Tetrachloride/Dichlorotris-(triphenylphosphine)ruthenium (II) Methylaluminum Bis(2,6-di-tert-butylphenoxide) Initiating System: Possibility of Living Radical Polymerization</i> , <i>Macromolecules</i> , 1995. Received September 6, 1994. Revised Manuscript Received November 28, 1994.
			Timothy E. Patten and Krzysztof Matyjaszewski, <i>Atom Transfer Radical Polymerization and the Synthesis of Polymeric Materials</i> , <i>Advanced Materials</i> 1998 10 No. 12, 901-915.
			Tsuyoshi Ando, Masami Kamigaito and Mitsuo Sawamoto, <i>Iron(II) Chloride Complex for Living Radical Polymerization of Methyl Methacrylate</i> , <i>Macromolecules</i> , Volume 30, Number 16, August 11, 1997.
			C. Granel, Ph. Dubois, R. Jérôme and Ph. Teyssié, <i>Controlled Radical Polymerization of Methacrylic Monomers in the Presence of a Bis(ortho-chelated) Arylnickel(II) Complex and Different Activated Alkyl Halides</i> , <i>Macromolecules</i> , 1996, 29, 8576-8582.
			Hiroko Uegaki, Yuzo Kotani, Masami Kamigaito and Mitsuo Sawamoto, <i>Nickel-Mediated Living Radical Polymerization of Methyl Methacrylate</i> , <i>Macromolecules</i> , 1997, 30, 2249-2253.
			Virgil Percec, Bogdan Barboiu, Andreas Neumann, Joan C. Ronda and Mingyang Zhao, <i>Metal-Catalyzed "Living" Radical Polymerization of Styrene Initiated with Arenesulfonyl Chlorides. From Heterogeneous to Homogeneous Catalysis</i> , <i>Macromolecules</i> , 1996, 29, 3665-3668.
			G. Moineau, C. Granel, Ph. Dubois, R. Jérôme and Ph. Teyssié, <i>Controlled Radical Polymerization of Methyl Methacrylate Initiated by an Alkyl Halide in the Presence of the Wilkinson Catalyst</i> , <i>Macromolecules</i> , 1998, 31, 542-544.
✓			Mingli Wei, Jianhui Xia, Nancy E. McDermott and Krzysztof Matyjaszewski, <i>Atom Transfer Radical Polymerization of Styrene in the Presence of Iron Complexes</i> , <i>Polymer Preprints</i> , 38(2), 231 (1997), Department of Chemistry, Carnegie Mellon University.
uk			G. Moineau, Ph. Dubois, R. Jérôme, T. Senninger and Ph. Teyssié, <i>Alternative Atom Transfer Radical Polymerization for MMA Using FeCl₃ and AIBN in the Presence of Triphenylphosphine: An Easy Way to Well-Controlled PMMA</i> , <i>Macromolecules</i> , 1998, 31, 545-547.



5/12/06

ak				Timothy E. Patten, Jianhui Xia, Teresa Abernathy and Krzysztof Matyjaszewski, <i>Polymers with Very Low Polydispersities from Atom Transfer Radical Polymerization</i> , Science, Reprint Series, 10 May 1996, Volume 272, pp. 866-868.	*
				Patrick S. Wolfe and SonBinh T. Nguyen, <i>Atom Transfer Radical Polymerization of Styrene Utilizing an Iron (II) Complex of a Tetradentate Schiff-Base</i> , Department of Chemistry, Northwestern University, Polymer Preprints 552-553.	
				Marc Husseman, Eva E. Malmström, Molly McNamara, Mathew Mate, David Mecerreyes, Didier G. Benoit, James L. Hedrick, Paul Mansky, E. Huang, Thomas P. Russell and Craig J. Hawker, <i>Controlled Synthesis of Polymer Brushes by "Living" Free Radical Polymerization Techniques</i> , Macromolecules, Vol. 32, No. 5, 1424 (1999).	
				Muhammad Ejaz, Shinpei Yamamoto, Kohji Ohno, Yoshinobu Tsujii and Takeshi Fukuda, <i>Controlled Graft Polymerization of Methyl Methacrylate on Silicon Substrate by the Combined Use of the Langmuir-Blodgett and Atom Transfer Radical Polymerization Techniques</i> , Macromolecules, Vol. 31, No. 17, 1998.	
				Jianhui Xia and Krzysztof Matyjaszewski, <i>Controlled/"Living" Radical Polymerization. Homogeneous Reverse Atom Transfer Radical Polymerization Using AIBN as the Initiator</i> , Macromolecules, Vol. 30, No. 25, 7692-7696, 1997.	
				Krzysztof Matyjaszewski, Simion Coca, Scott G. Gaynor, Mingli Wei and Brian E. Woodworth, <i>Zerovalent Metals in Controlled/"Living" Radical Polymerization</i> , Macromolecules, Vol. 30, No. 23, 1997, 7348-7350.	
				Stefan A. F. Bon, Michiel Bosveld, Bert Klumperman and Anton L. German, <i>Controlled Radical Polymerization in Emulsion</i> , Macromolecules, Vol. 30, No. 2, 1997, 324-326, Communications to the Editor.	
				Simion Coca, Christina B. Jasieczek, Kathryn L. Beers and Krzysztof Matyjaszewski, <i>Polymerization of Acrylates by Atom Transfer Radical Polymerization. Homopolymerization of 2-Hydroxyethyl Acrylate</i> , Journal of Polymer Science, Part A: Polymer Chemistry, Vol. 36, 1417-1424 (1998).	
				Masami Kamigaito and Mitsuo Sawamoto, <i>Transition Metal-Catalyzed Living Radical Polymerization: Recent Progress</i> , Department of Polymer Chemistry, Graduate School of Engineering, Kyoto University, Kyoto 606-8501, Japan, Polymer Preprints, 325-326.	
				Timothy von Weme and Timothy E. Patten, <i>The Preparation of Polymer-Inorganic Hybrid Nanoparticles Using Controlled/Living Radical Polymerization</i> , Department of Chemistry, University of California, Polymer Preprints, 354-355.	
				Shingtza Liou, Dennis Malaba, William J. Brittain, Youngjoon Lee and Roderic P. Quirk, <i>Atom Transfer Radical Polymerization of Methyl Methacrylate with Polyethylene-Functionalized Ligands</i> , Department of Polymer Science, University of Akron, Ohio, Polymer Preprints, 380-381.	
ak				Yuzo Kotani, Masami Kamigaito and Mitsuo Sawamoto, <i>Transition Metal-Mediated Living Radical Polymerization of Styrene: Design of Initiating Systems</i> , Department of Polymer Chemistry, Graduate School of Engineering, Kyoto University, Kyoto 606-8501, Japan, Polymer Preprints, 468-469.	



5/12/06

uk			KYUNG-Youl Baek, Masami Kamigaito and Mitsuo Sawamoto, <i>Synthesis of Star-Shaped Polymers with Divinyl Compounds by Metal-Catalyzed Living Radical Polymerization</i> , Department of Polymer Chemistry, Graduate School of Engineering, Kyoto University, Kyoto 606-8501, Japan, <i>Polymer Preprints</i> , 472-473.
uk			Naida S. Gill, <i>Complex Halides of the Transition Metals. Part II., Tetrahedral Iron Complexes</i> , <i>Journal Chem Soc.</i> , 3512 (1961).
uk			C. A. Clausen, III and M. L. Good, <i>Mössbauer and Far-Infrared Studies of Tetrahaloferrate Anions of the Type $FeCl_{4-n}Br_n$</i> , <i>Inorganic Chemistry</i> , Vol. 9, No. 2, p. 220 (1970).
uk			Gordon D. Sproul and G. D. Stucky, <i>The Structure of Bis(methylammonium) Tetrabromoferrate(III) Bromide, $(H_3CNH_3)_2[FeBr_4]Br$</i> , <i>Inorganic Chemistry</i> , Vol. 11, No. 7, 1647-1650 (1972).
uk			Kim R. Dunbar and Anne Quillevéré, <i>$[Fe_2Cl_4]^{2-}$: A Discrete Form of Ferrous Chloride</i> , <i>Angew. Chem, Int. Ed. Engl.</i> Vol. 32, No. 2, 293-295 (1993).
			A. P. Philipse and A. Vrij, <i>Preparation and Properties of Chemically Modified, Charged Dispersions of Chemically Modified, Charged Interface Science</i> , Vol 128, No. 1, March 1, 1991. del solid and
			Controlled "Living" Emulsion Polymerization and Transfer Radical Polymerization. PART 2, Cou... om
			Krzysztof Matyjaszewski, Mingli Wei, Jianhui Controlled "Living" Radical Polymerization of Catalyzed by Iron Complexes , <i>Macromolecules</i> , Vol. 30, NO. 20, 1997. att. rylate
uk			Matyjaszewski, et al., U.S. Application Serial No. 09/126,768, Filed July 31, 1998.
uk			Matyjaszewski, et al., U.S. Application Serial No. 09/018,554, Filed February 4, 1998.
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

5/12/06